ANACOSTIA RIVER

The State of the Anacostia and Quality of Life in the Washington Area

The Anacostia River is critical to the future of Washington and the surrounding region. A river that divides the city, full of chemicals, bacteria, nitrogen and phosphorous, low on life-giving oxygen, and without its natural wetland nurseries, is not a river that can contribute to the quality of life in the nation's capital. Nor is it a river that has a healthy effect on the downstream Potomac or the Bay.

The efforts of many individuals and organizations from 1990 to 2004 have already resulted in a slight positive trend in several critical indicators: dissolved oxygen, fecal coliform, and suspended solids. Each of these appears to be headed in the right direction, but none of them is near the levels needed for a clean and healthy river.

Today, Washington's Anacostia River area is poised to join the ranks of world-class urban waterfronts, becoming a new quality of life hub for the District of Columbia and the surrounding areas. The visionary Anacostia Waterfront Framework Plan, the Anacostia Waterfront Corporation, the three new mixed-used, mixed-income neighborhoods planned for Southeast and Southwest, the federal Department of Transportation project with its green public areas, the new Washington Canal Park, and the possibility of a new baseball stadium have all brought attention to the value of the Anacostia for economic and quality of life improvements in the nation's capital. Each project has within it the potential to make the river better—as old, polluting areas are replaced with a new landscape containing state-of-the-art environmental controls. More, importantly, together they provide a tremendous incentive to make the river clean and healthy.

Unfortunately, no similar effort is being given to creating new and effective approaches for the critical task of getting the Anacostia cleaned up. We therefore call on the federal, DC, Maryland and Prince George's and Montgomery County governments to:

1) Provide the millions of dollars of federal, state, and local funds to upgrade the District's outmoded combined sewer system, stopping it from spilling billions of gallons of untreated wastewater into the Anacostia each year. Congress and the White House must provide leadership in finding the federal money, and state and local governments throughout the region must share in the costs.

Photo by CBF Staff

CBF Headquarters
Philip Merrill Environmental Center
6 Herndon Avenue
Annapolis, MD 21403
T: (410) 268-8816
web site: cbf.org and cbf.org/Anacostia
e-mail: chesapeake@cbf.org

Anacostia River Initiative Office
725 8th Street SE
Washington, DC 20003
T: (202) 544-2232 F: (202) 544-2234
web site: www.cbf.org/Anacostia
e-mail: anacostia@cbf.org

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2) Require the use of state-of-the-art techniques to manage polluted urban runoff on all federal properties, state and municipal roadways, and any new development that drains to the Anacostia.

3) Restore a significant part of the wetlands and other natural features of the river.

Doing these things will require an energetic new regional partnership of the Federal Government, the State of Maryland, the District of Columbia, and Prince George's and Montgomery Counties that shares in this vision of a healthy Anacostia and creates an ambitious implementation plan to get it done. The partnership has to be created, and implemented, at the very highest levels of government.

The vision of a clean Anacostia must be shared by private landowners and individuals as well. Private landowners, including institutions, can do their part by adopting state-of-the-art run-off management techniques such as vegetated roofs and infiltration areas on their properties. Individuals can help by being very careful with their trash, yard chemicals, and other pollutants.

The Anacostia has been contaminated for decades, and it will not become clean and healthy again overnight. The nation's capital, however, is a special place, and it is within our reach to make the river that runs past the foot of Capitol Hill – and then to the Potomac and into the Chesapeake Bay – one that every single American can be proud of. The law requires it, and our citizens deserve nothing less.

T H E S T A T E O F T H E

ANACOSTIA RIVER

A H E A L T H I N D E X

Photo by Tom Williams

The Chesapeake Bay Foundation has a bold vision for the river that runs through the heart of the nation's capital.

CBF's vision for the Anacostia is both ambitious and simple: by the year 2020, the Anacostia will be a river from which fish are safe to eat and in which children are free to swim. The residents of the Washington area, west and east of the Anacostia, deserve no less.

When the District of Columbia was created two centuries ago, the Anacostia River was the centerpiece of the founders' hopes and dreams. The District, and the new nation that commissioned it, were both founded on grand visions no less improbable than our dream today of a clean and safe Anacostia River. Those dreams of a great capital city and a great nation have come to pass. So, too, can our vision of a river that all of America can be proud of.

The Chesapeake Bay Foundation's first health index for the Anacostia compiles available scientific data to document just how polluted the Anacostia has become. The Anacostia has too much untreated human waste, too much trash, too much sediment, too many toxic chemicals, and not enough life-giving oxygen or wetlands. The Anacostia's condition is serious, but it need not remain so.

The many pollutants that degrade the Anacostia can be eliminated and the biological richness that once characterized the Anacostia can be restored. This vision is no more than the promise of the law of the land. The federal Clean Water Act directs that pollutants be eliminated, aquatic life be protected, and safe water recreation be made available to American citizens in the Anacostia and every other American river, lake, and bay.

The pollutant numbers on the next two pages are a snapshot of today, but not of tomorrow. We envision a clean and healthy Anacostia within our lifetimes. With sufficient political commitment from the federal government, the District of Columbia, the State of Maryland, and the local governments of Montgomery and Prince George's Counties, the Anacostia can and will once again encompass the hopes and dreams of a nation.

In 1622, fur trader Henry Fleet visited the Potomac and probably the Anacostia, and wrote "The forests are lush and green. Wildlife abounds, and the crystal river is filled with fish."

Courtesy of George Washington University

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Courtesy of George Washington University

Based on available data, the Anacostia River rates 17 on a 100 point scale. CBF's goal is a score of 40 by 2020, and 70 by 2050.


Photo by Douglas Graham

Pollutants that enter the Anacostia, primarily during rainstorms, make the river dangerous for people and wildlife. The river will be safe when we get the old contaminants cleaned up and stop new pollution from entering.

How to Measure A River's Health

There are many ways to measure the health of a river. For example, in 2001, the Washington Metropolitan Council of Governments (MWCOG), with support from the Summit Fund of Washington, developed an array of 51 measures to gauge progress toward a cleaner Anacostia.

While the MWCOG array is technically valuable, it is too complex to easily understand. Moreover, in many cases the needed measurement data simply do not exist.

CBF has chosen a different approach, similar to the one used in our annual State of the Bay report. We have chosen to highlight seven important measures for which real data exist, and we have created a 100-point scale, with 100 representing health of the river before humans began to affect the Anacostia.

The seven scientific criteria are trash, fecal coliform, suspended solids, toxic chemicals, dissolved oxygen, nitrogen and wetlands. Four of these come directly from our State of the Bay report, and three additional criteria were chosen because of their special importance to the Anacostia. Finally, since so much of the future of the Anacostia depends on the actions of the federal, state, District, and local county governments, we added a measure of how much restoration attention the Anacostia is receiving. Using these eight criteria, on the 100-point scale the health of the Anacostia this year is 17.

A Summary of the Criteria We Have Used

Trash 14

Trash comes from littering, as well as overflowing dumpsters and garbage cans. Some people simply dump trash illegally into rivers and parks. Municipal stormwater systems, the underground networks of pipes designed to keep rainwater from flooding the city streets, also wash tons of debris off streets and directly into the Anacostia River system every year.

Scores for Key Pollutants

On a 100 point scale

Trash	14
Fecal Coliform	18
Suspended Solids	12
Toxic Chemicals	14
Dissolved Oxygen	25
Nitrogen	11
Wetlands	5
Government Action	35
State of the Anacostia Health Index	**17**

Fecal Coliform 18

High levels of fecal coliform bacteria indicate the presence of potentially disease-causing bacteria and other pathogens. Fecal bacteria in the Anacostia is the result of human and animal waste conveyed to the river from leaking sewer pipes, unfiltered stormwater, and DC's combined sewer system. The combined sewer is a particular focus of concern because this antiquated system overflows every time there is a significant rainfall, dumping raw sewage into the river an average of 80 times a year. Harmful bacteria occurs in such abundance that the river is designated unsafe for swimming at any time.

Suspended Solids 12

High levels of suspended solids, or sediment floating in the river, block out sunlight, prevent growth of underwater plants, and harm fish by covering nesting areas and clogging gills. In addition, toxic pollutants bind to suspended solids and thus filter into the underwater food chain. Sediment enters the river from stream bank erosion and runoff from open land, including poorly managed construction sites.

Toxic Chemicals 14

Industries that operated without environmental controls during a large part of the 20th century left deep deposits of toxic chemicals scattered along the river bottom. Rainfall running off city streets continues to wash dangerous substances, especially petrochemical byproducts, into the river. Some of these chemicals are known to cause cancer and break down DNA in some plants and animals. Up to two-thirds of the brown bullheads in the river have recently been found to have cancer. As some residents continue to rely on subsistence fishing as a food source, toxics moving up the food chain pose unacceptable risks to communities.

Photo by Douglas Graham

Dissolved Oxygen Levels 25

Fish need oxygen in the water to breathe and survive. Low levels of oxygen are caused primarily by nitrogen and phosphorus pollution that stimulate overgrowth of algae, which then reduce oxygen levels when they die and decompose.

Nitrogen 11

Raw sewage overflows, runoff from fertilized lawns, and debris and filth from stormwater runoff create high nitrogen levels, causing algae blooms and low dissolved oxygen in the Potomac River and Chesapeake Bay. An increase of natural buffers and green spaces that act as filters for runoff in the Washington metropolitan area, along with more responsible stormwater management, are key to any improvement.

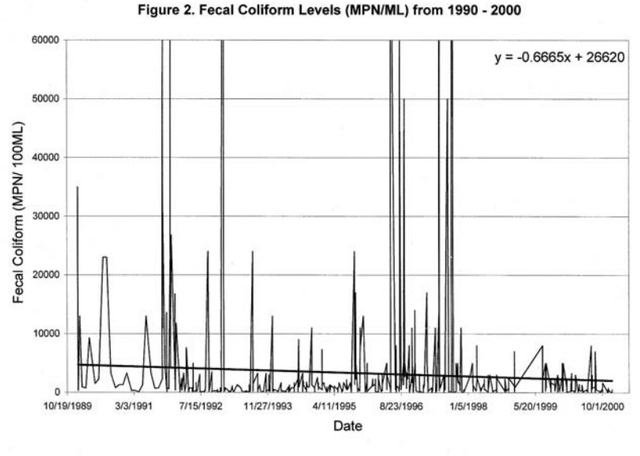
Wetlands 5

Wetlands are essential for healthy aquatic biological systems; they are the means by which rivers clean themselves, and are the nurseries for fish, bird animal, and plant life. The Anacostia has lost something like 2500 acres of tidal wetlands.

Government Action 35

Nearly all of the pollutants produced by people in the Anacostia River basin (watershed) are conveyed to the Anacostia by public sewers and stormwater systems. Just as public roads need to be replaced when they are no longer adequate, these public systems must be replaced through public investment. Government agencies also produce a good deal of the pollution that goes to the Anacostia, with more than a sixth of the Anacostia watershed owned by the federal government alone.

Fecal bacteria levels improved slightly in the 1990s



Graph by CBF staff

Where Does Anacostia Pollution Come From?

Walt Kelley's 1950s cartoon philosopher Pogo famously remarked, "We have met the enemy and he is us." So it is with pollution in the Anacostia. There are no huge factory pipes spewing pollution into the Anacostia River. There may be a few conscious polluters, but to a very large degree, the pollution comes from us – our cars, our homes, yards and gardens, our parking lots, our trash. Moreover, it is conveyed to the river through our publicly owned infrastructure.

In the past, the focus of public urban infrastructure has been to channel water away from the streets and hard surfaces of cities in order to prevent flooding. Today, however, we realize that the sewer and stormwater systems that have eased threats from flooding are also cruelly efficient mechanisms for channeling pollution into our rivers. All of the criteria used in this report – from trash to dissolved oxygen levels – reflect this. If there is any hope for a healthy Anacostia River, the very urban questions of pollution, impervious surfaces, and the sewer and stormwater systems must be addressed by the governments responsible for them.